

RAN-2508000605010002
B. Com (NCF-NEP) (Sem.V) Examination March - 2026
Major R For Data Science (Theory)
[Total Marks: 25]

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book (2) Sketch neat and labelled diagram wherever necessary. (3) Figures to the right indicate full marks of the question. (4) All questions are compulsory.	Seat No.: Student's Signature
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- Q. 1.** Attempt **any five** of the following: **10**
- What is R? What are some of its common uses in data analysis?
 - What does the function `c()` do in R?
 - Define a vector in R and give an example of creating a numeric vector.
 - What is a list in R? Give an example of it.
 - Which function is used to read a CSV file into R?
 - How do you display the first six rows of a data frame in R?
 - What is a factor in R, and why is it used?
- Q. 2.** Explain in detail the control structures available in R (if, else, for, while, repeat). Write suitable examples for each structure and discuss how they are useful in programming. **15**
- OR**
- Q. 2 (a)** Given a numeric vector of student test scores, write R code to calculate the mean, median, standard deviation, and variance. Explain briefly what each statistic represents. **08**
- (b)** Create a vector `grades <- c("A", "B", "A", "C", "B", "A", "B", "C", "B", "A")`. Write R code to generate (a) a frequency table, (b) a relative frequency table, and (c) a bar plot of the grades. **07**